

## **REMARKS**

### **I. STATUS OF APPLICATION**

No claims are added, canceled, or amended in this paper. Therefore, claims 22-28 and 32-44 are pending in the present Application. Claims 27, 28, and 32-44 stand withdrawn from consideration due to a Restriction Requirement.

Claims 22-26 stand rejected under 35 USC § 102(b) as anticipated by, or, in the alternative, under 35 USC § 103(a), as obvious over U.S. Patent 4,888,228 to Sidles ("Sidles").

### **II. 35 USC § 102/103 REJECTIONS**

Claims 22-26 stand rejected under 35 USC § 102(b) as anticipated by, or, in the alternative, under 35 USC § 103(a), as obvious over Sidles. The rejections are respectfully traversed, as discussed *infra*.

#### **A. Claims 22-26 are not anticipated by Sidles**

Independent claim 22 requires "inserting discrete fibers through each preform generally in a Z direction, so as to form exposed Z-direction fibers and loops protruding outward from each preform." The Office alleges that column 2, lines 20-24 teaches this limitation.<sup>1</sup> *The portion of Sidles cited by the Office, however, does not disclose how the Z-direction fibers are placed in the substrate.* Sidles is silent with regard to how the fibers are placed in the substrate except in its discussion of a "double cantilever beam delamination test." Sidles teaches that "[s]ix plies were prepared from an all glass

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<sup>1</sup> Office Action of 20 March 2008, Detailed Action, p. 3, ll. 22-25. In its present Office Action, the Office references this rejection at p. 2, ll. 15-16.

substrate having **woven loops** on either side. Cut pile was formed on one side by **cutting the tips from the loops**" (emphasis added).<sup>2</sup> Thus, in Sidles' embodiments having loops on both sides of the substrate, the loops are formed from continuous strands of fibers that are woven through the substrate, *i.e.*, not discrete fibers inserted through a preform generally in a Z direction, as required by claim 22. In Sidles' embodiments having cut pile on one or both sides of the substrate, loops are first formed from continuous strands of fibers that are woven through the substrate. The loop tips are then cut from the loops to form the cut pile. Sidles' Z-direction fibers, even in these embodiments, are not discrete fibers inserted through a preform generally in a Z-direction, as required by claim 22. Therefore, Sidles cannot anticipate the present invention, as set forth in claim 22, because Sidles fails to disclose each and every limitation of the claimed invention in the same relationship as set forth in the claims.

Furthermore, independent claim 22 requires "infusing a resin material through each preform and the overlapped Z-direction fibers and loops." In their response to the Office Action of 20 March 2008, which is incorporated herein by reference, Applicants asserted that the phrase "infusing a resin material" is a term of art.<sup>3</sup> Applicants provided evidence, in the form of a copy of pages 417-418 of *Fundamentals of Composites Manufacturing: Materials, Methods and Applications*, in which resin infusion is defined. In the present Office Action, however, the Office disagrees with the composites industry's definition, relying instead upon a definition from a generalized, online

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<sup>2</sup> Sidles, col. 5, ll. 6-8.

<sup>3</sup> Applicants' Response to Office Action of 20 March 2008, p. 4, ll. 1-15.

dictionary, Dictionary.com.<sup>4</sup> Applicants respectfully maintain that the definition provided in Applicants' response to the Office Action of 20 March 2008 is proper and should be used when construing the claims.

The Court of Appeals for the Federal Circuit (CAFC) provides a proper framework in which to construe claim terms in *Phillips v. AWH Corp.*<sup>5</sup> The Court states that "[b]ecause the patentee is required to 'define precisely what his invention is,'...it is 'unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.'"<sup>6</sup> However, "the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention."<sup>7</sup> "The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation."<sup>8</sup> "Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification."<sup>9</sup> "We cannot look at the ordinary meaning of the term...in a vacuum. Rather we must look at the ordinary meaning in the context of the written description

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<sup>4</sup> Attachment, dated 15 October 2008, to PTO-892 accompanying Office Action of 20 October 2008.

<sup>5</sup> *Phillips v. AWH Corp.*, 03-1269, -1286 (Fed. Cir., July 12, 2005) (Fed. Cir. BBS).

<sup>6</sup> *Phillips*, slip op. at 8, citing *White v. Dunbar*, 119 U.S. 47, 52 (1886).

<sup>7</sup> *Phillips*, slip op. at 9, citing *Innova/Pure Water Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111 (Fed. Cir. 2004).

<sup>8</sup> *Phillips*, slip op. at 9, citing *Innova*, 381 F.3d at 1116.

<sup>9</sup> *Phillips*, slip op. at 10, citing *Multiform Dessicants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998).

and the prosecution history.”<sup>10</sup> “[C]laims ‘must be read in view of the specification, of which they are a part.’”<sup>11</sup> “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually it is dispositive; it is the single best guide to the meaning of a disputed term.’”<sup>12</sup> “[W]hile extrinsic evidence ‘can shed useful light on the relevant art,’ we have explained that it is ‘less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’”<sup>13</sup> “Dictionaries, by their nature, provide an expansive array of definitions. General dictionaries, in particular, strive to collect all uses of particular words, from the common to the obscure.”<sup>14</sup> “Indiscriminate reliance on definitions found in dictionaries can often produce absurd results...One need not arbitrarily pick and choose from the various accepted definitions of a word to decide which meaning was intended as the word is used in a given claim. The subject matter, the context, etc., will more often than not lead to the correct conclusion.”<sup>15</sup>

Applicants respectfully assert that the Office has misconstrued the phrase “infusing a resin material.” The claimed invention is directed to, *inter alia*, composite laminates. Applicants have provided a definition shown in a well-known composites text. The Office, in error, instead relies upon a definition from a general dictionary. As

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<sup>10</sup> *Phillips*, slip op. at 10, citing *Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005).

<sup>11</sup> *Phillips*, slip op. at 13, citing *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978 (Fed. Cir. 1995) (*en banc*), *aff’d.*, 517 U.S. 370 (1996).

<sup>12</sup> *Phillips*, slip op. at 13, citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

<sup>13</sup> *Phillips*, slip op. at 18, citing *C. R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004), quoting *Vanderlande Indus. Nederland BV v. Int’l Trade Comm’n*, 366 F.3d 1311, 1318 (Fed. Cir. 2004).

<sup>14</sup> *Phillips*, slip op. at 26.

<sup>15</sup> *Phillips*, slip op. at 26-27, citing *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1999), quoting *Liebscher v. Boothroyd*, 258 F.2d 948, 951 (CCPA 1958).

discussed in *Phillips*, “[o]ne need not arbitrarily pick and choose from the various accepted definitions of a word to decide which meaning was intended as the word is used in a given claim. The subject matter, the context, etc., will more often than not lead to the correct conclusion.”<sup>16</sup> The subject matter concerns composite laminates and the definition provided by Applicants concerns “resin infusion,” as it pertains to composite laminates. It is, therefore, respectfully requested that the Office construe the claims in light of the definition of “resin infusion” provided by Applicants over the general definition proffered by the Examiner. Sidles cannot anticipate the present invention, as set forth in claim 22, when the terms of claim 22 are properly construed.

Claims 23-26 depend from claim 22. Therefore, the remarks provided *supra* concerning claim 22 apply equally to claims 23-26.

Accordingly, it is respectfully requested that the rejection of claims 22-26 under 35 USC § 102(b), as being anticipated by Sidles, be reconsidered and withdrawn.

#### **B. Claims 22-26 are not rendered obvious by Sidles**

As discussed *supra* concerning the 102(b) rejection over Sidles, Sidles fails to disclose “inserting discrete fibers through each preform generally in a Z direction, so as to form exposed Z-direction fibers and loops protruding outward from each preform,” as required by independent claim 22. Furthermore, independent claim 22 is not obvious in light of Sidles, for example:

- The claimed invention is not made up of prior art elements combined according to known methods to yield predictable results. The cited art

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<sup>16</sup> *Phillips*, slip op. at 26-27, citing *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1999), quoting *Liebscher v. Boothroyd*, 258 F.2d 948, 951 (CCPA 1958).

fails to teach “inserting discrete fibers through each preform generally in a Z direction, so as to form exposed Z-direction fibers and loops protruding outward from each preform;”

- The claimed invention is not a simple substitution of one known element for another that provides predictable results. The cited art fails to teach “inserting discrete fibers through each preform generally in a Z direction, so as to form exposed Z-direction fibers and loops protruding outward from each preform;”
- The claimed invention is not a use of a known technique to improve similar methods. The cited art fails to teach the claimed technique;
- The claimed invention is not an application of a known technique to a known method ready for improvement to yield predictable results. The cited art fails to teach the claimed technique;
- The claimed invention is not a result of choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success. The cited art fails to teach the claimed solution and provides no suggestion that such a modification would have any reasonable expectation of success;
- The claimed invention is not an application of known work in one field of endeavor used based on design incentives or market forces, wherein the variations are predictable to one of ordinary skill in the art. The cited art fails to teach the claimed technique; and

- The cited art fails to provide any teaching, suggestion, or motivation to one of ordinary skill in the art to modify Sidles commensurate with the claimed invention. The cited art fails to teach or in any way suggest the claimed technique.

Therefore, for at least this reason, Sidles fails to render the present invention, as set forth in claim 22, obvious.

Furthermore, as discussed *supra* concerning the 102(b) rejection over Sidles, Sidles fails to disclose “infusing a resin material through each preform and the overlapped Z-direction fibers and loops,” as required by independent claim 22, as well as claims 23-26, which depend therefrom. The Office has provided no allegations concerning this limitation of the rejected claims, other than to allege that Sidles teaches the limitation. Accordingly, Applicants respectfully assert that Sidles fails to render obvious the present invention, as set forth in claims 22-26.

It is, therefore, respectfully requested that the rejection of claims 22-26 under 35 USC § 103(a), as being unpatentable over Sidles, be reconsidered and withdrawn.

### **III. DISTINCTIONS, OTHER THAN THOSE DISCUSSED, MAY EXIST**

Note that Applicant has merely discussed example distinctions from the various references cited by the Office. Other distinctions may exist and Applicant reserves the right to discuss these additional distinctions in a future Response or on Appeal. By not responding to the additional statements made by the Examiner, Applicant does not acquiesce to the Examiner’s additional statements. The remarks provided above are sufficient to overcome the Office’s rejections.

## **CONCLUSION**

Wherefore, in view of the foregoing remarks, this application is considered to be in condition for allowance, and an early reconsideration and issuance of a Notice of Allowance are earnestly solicited. The Examiner is invited to contact the undersigned at (817) 578-8616 with any questions, comments, or suggestions relating to the referenced patent application.

Respectfully submitted,

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Date

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